



green, Chicago-style/verde de estilo Chicago

11.04.07

Center for Urban Ecology,
University of Illinois@Chicago

1.230.000 google hits



“Chicago style”

1.060.000 google hits



“New York style”

365.000 google hits



“LA style”



informal comparisons/

Chicago style



footwurk: hiphop + tap

Chicago style



steppin: bebop + the hustle

Chicago style



mixtures/natural + artificial

Chicago style



mixtures/natural + artificial

Chicago style



mixtures/authenticity is not important

Chicago style



mixtures/the mix is crucial

Chicago style





mixtures/intellectual

Chicago style

Chicago, 1 Mayo 06



mixtures/as a city of immigrants our politics are global + local

Chicago style

Chicago, 1 Mayo 06



somos americana/no somos criminales, somos trabajadores; operates at all scales

Chicago style



popular



intellectual



political



mixtures -- influential, but never 'official'

Chicago style



popular: a lifestyle, an attitude about the environment;
no distinction between the artificial and the natural, the
native and the non-native



intellectual: young city created by three ecologies



political: an intimate force that seeks to coop rather than control

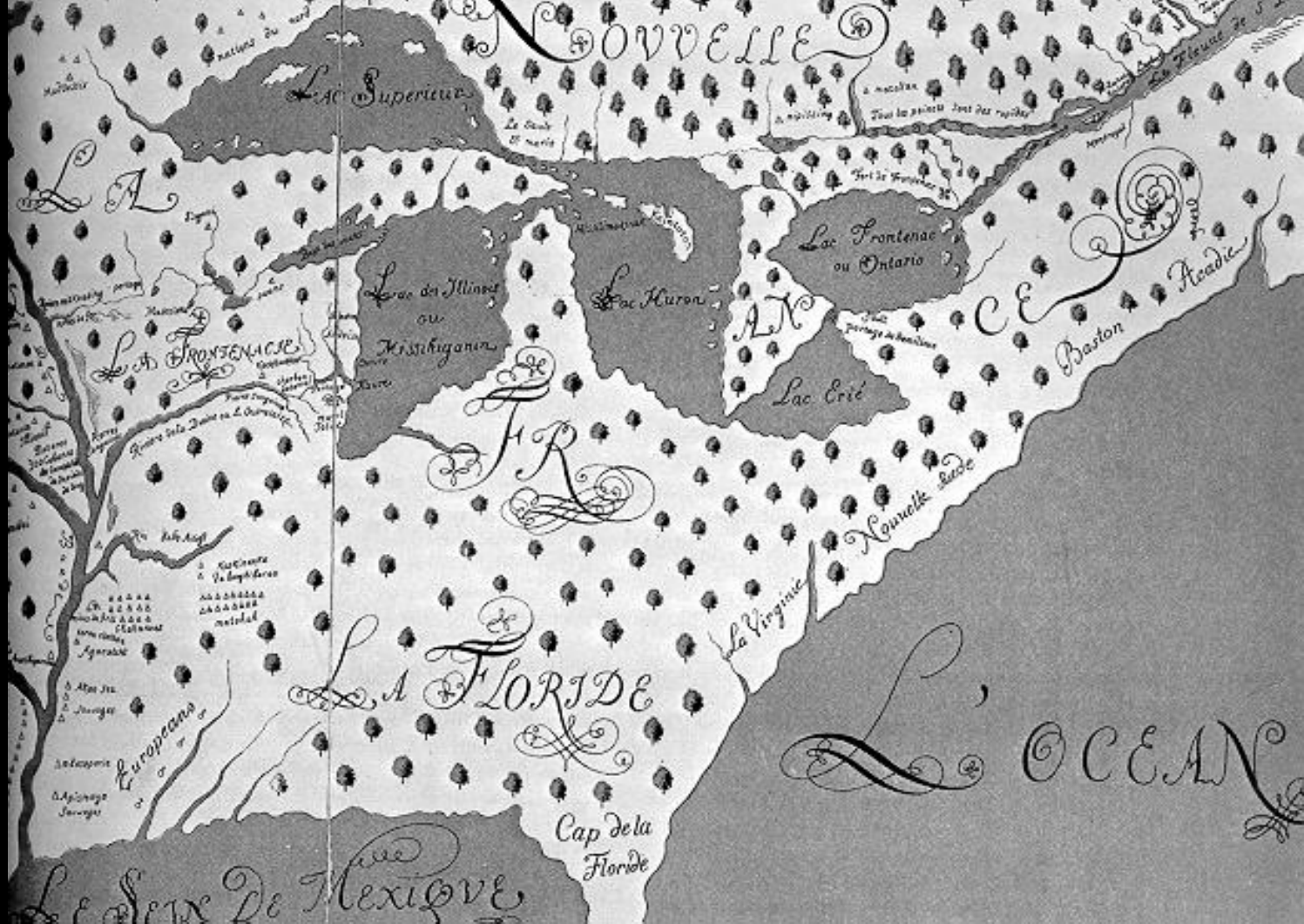


what is green, Chicago-style? Technology is not important.

Chicago style

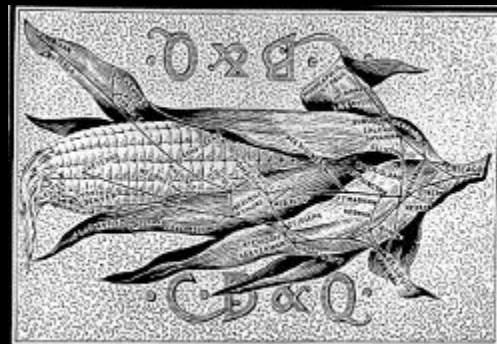
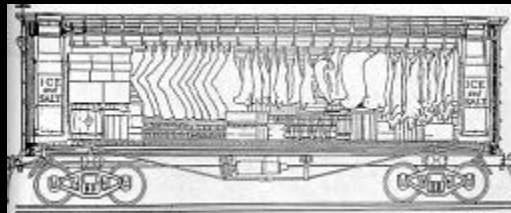


ecologies create a city; complex ecotone in a featureless landscape; sets up a culture based on exchange
the history of green in Chicago



the ecology creates an economy. industrialization depended upon the region's biology.

the history of green in Chicago





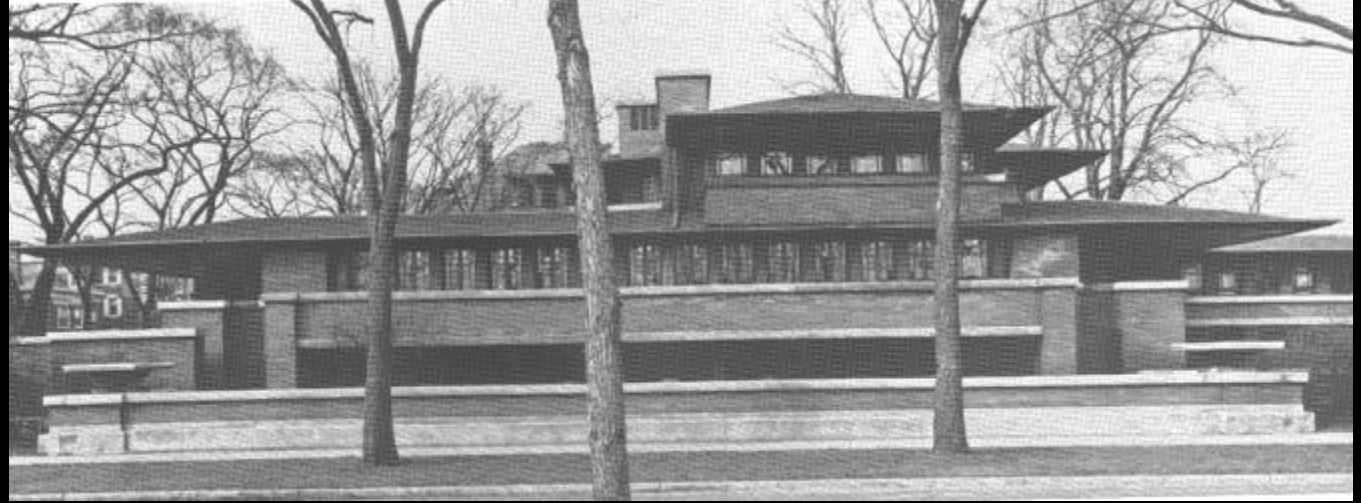
an economy creates the vision. *urbs en horto.*

the history of green in Chicago [Riverside, 1869] [Columbian exhibition, 1893]



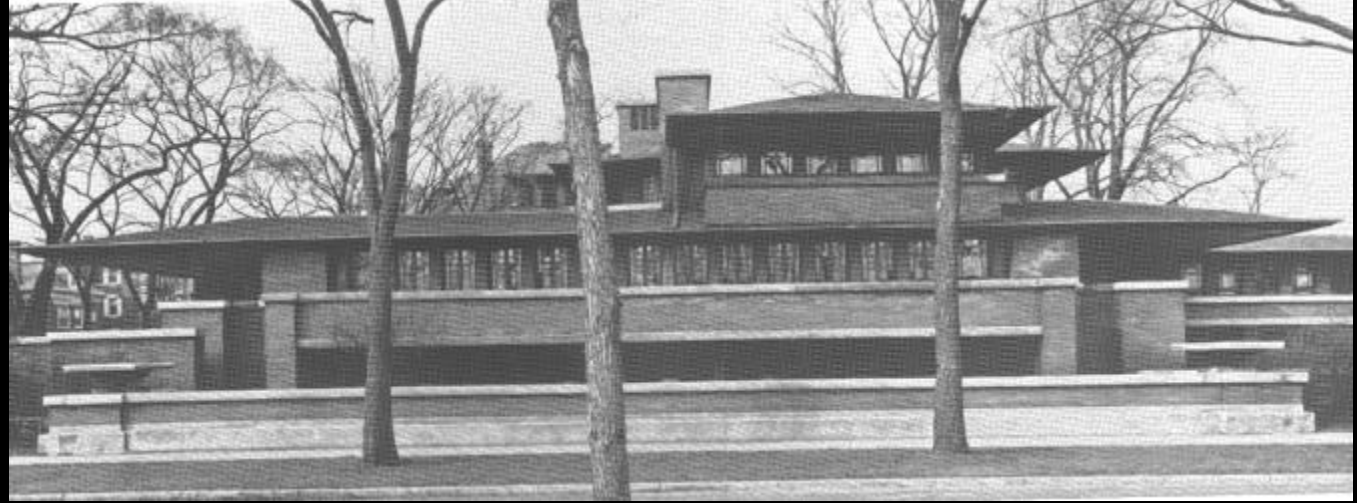
the vision. situated between a savannah and a sea, the city is envisioned as the interstice of biological networks that exist at many scales.

the history of green in Chicago



the architecture. A 'prairie school' entangled with a great industrial infrastructure.

the history of green in Chicago



“The primal power assuming self-expression, amid nature’s impelling urge...all magnificent and wild; a crude extravaganza, an intoxicating rawness, a sense of big things to be done.” Louis Sullivan. *The Autobiography of an Idea*. 1924



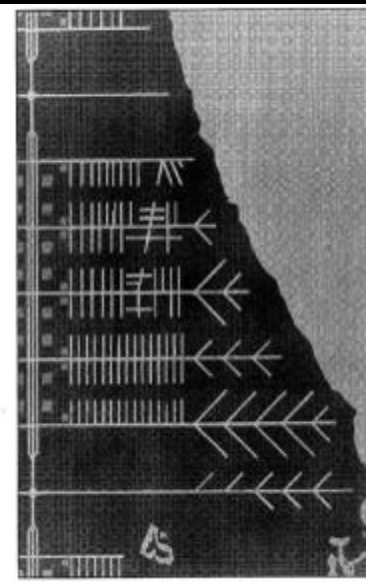
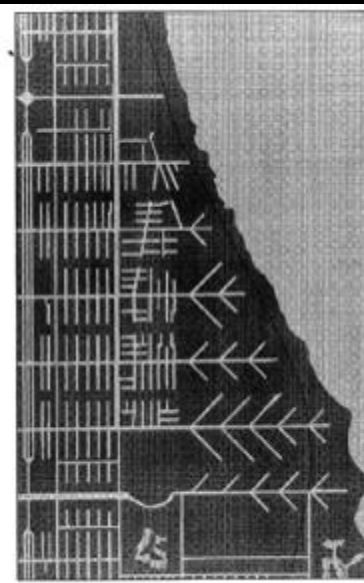
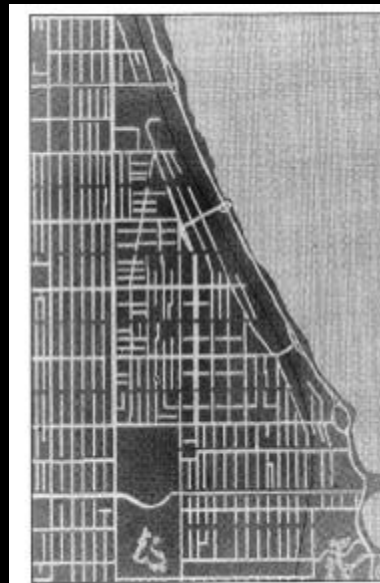
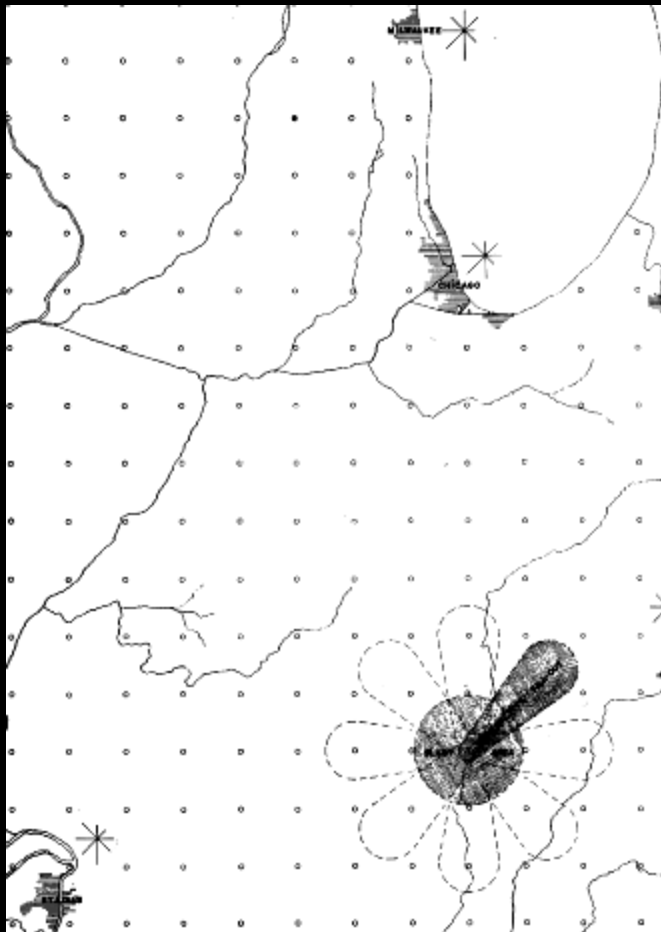
the architecture. Sullivan’s study of botany; organic and inorganic combined.

the history of green in Chicago



a profound change; city as brownfield. Green and urbanity in conflict.

the history of green in Chicago



a profound change; city as brownfield. an erasure; urbanity dissolves.

the history of green in Chicago



“Nature is truly affecting only when it begins to be dwelled in, when culture begins in it.” Mies, quoting Guardini in 1926 organic is not biomorphic



a profound change; city as brownfield. For Mies, and most of postwar architecture, nature is determined by culture.

the history of green in Chicago



30,000



1,700,000



3,400,000



a profound change; city as brownfield. The garden is gone.

the history of green in Chicago



a profound change; city as brownfield. The legacy, a toxic biology.
the history of green in Chicago

the national situation

US is responsible for 29% of all carbon dioxide from energy usage.

Despite being the biggest contributor to global warming, it is likely that the US will experience much less than it's share of the effects of climate change ['catastrophes are not democratic'].

The US environmental agency, until this week, has refused to recognize carbon dioxide as an air pollutant, and refuses to regulate it in most circumstances.

The US did not sign the Kyoto protocols...



a post-industrial city. If we want change, we are on our own. What can be done?

green architecture now



1907



2007

a century of the
Irish political
machine



a post-industrial city. green is the color of politics; a century of political control based from a single neighborhood
green architecture now



a post-industrial city. green is the color of ethnic politics
green architecture now



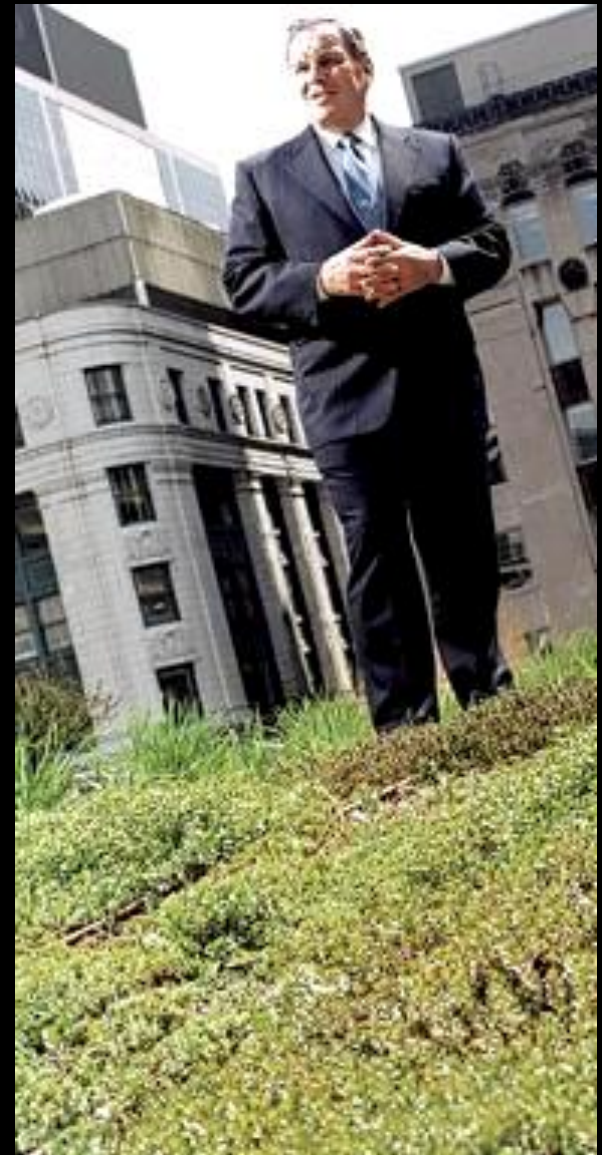
a post-industrial city. green is the color of ethnic politics; but on St. Patrick's day, everyone is green [no alternative?].

green architecture now



la techa verde del
alcante

if industrial
Chicago consumed
natural resources,
post-industrial
Chicago must
produce them.



a post-industrial city. green is political capital for a corrupt regime; Chicago: 'greenest city in the US'

green architecture now

chicago green buildings

green building database/GIS map:

inventory: identify and locate green projects (UIC/DCAP)

case studies:

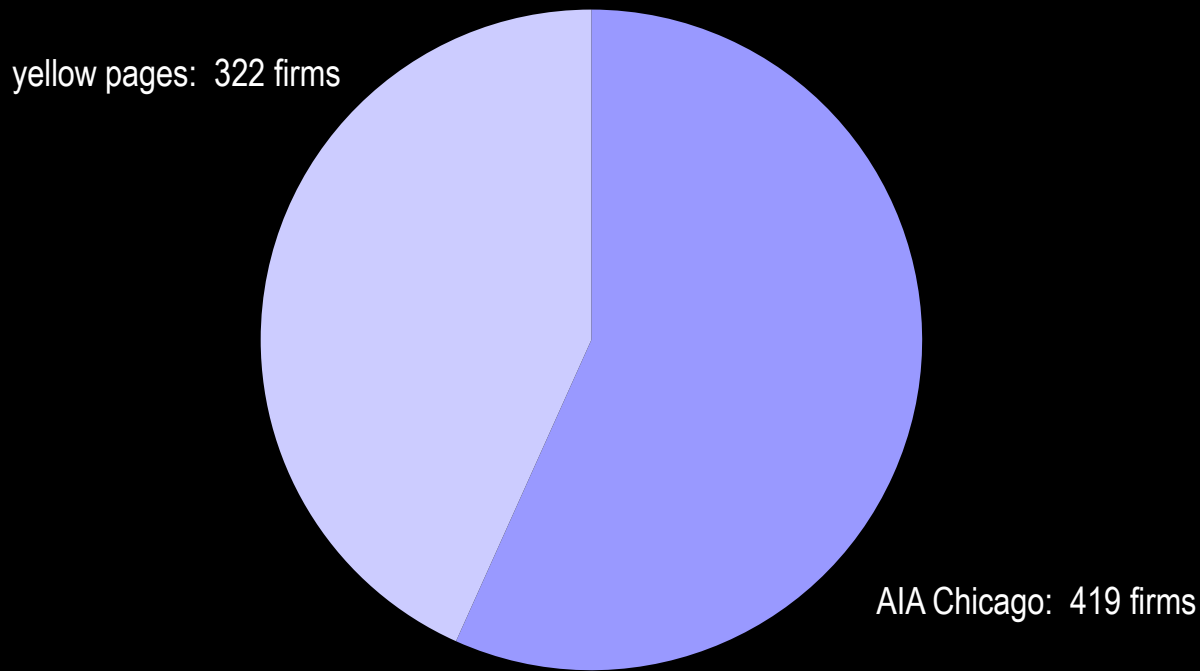
design and construction decision-making [14 projects] (UIC/DCAP)

performance studies [3 projects] (IIT/DCAP)



a post-industrial city. Is there a new green architecture in Chicago?

green architecture now



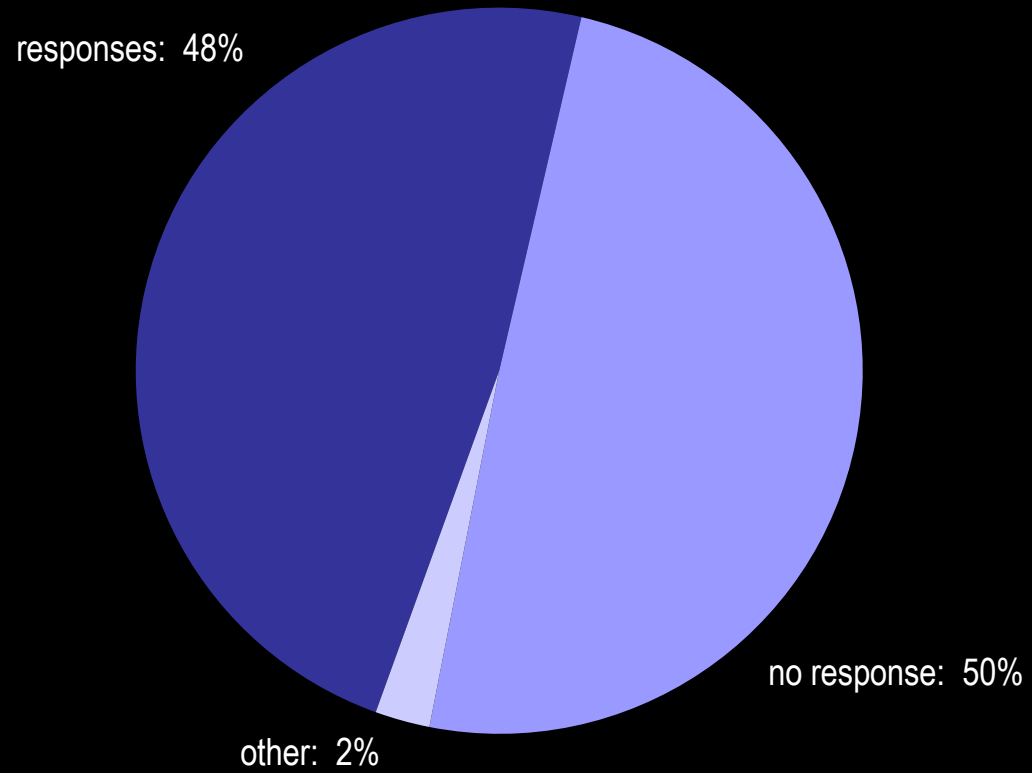
phone survey, 2005

741 Chicago area firms



a post-industrial city. Attempted to interview every architect in the metropolitan area.

green architecture now



phone survey, 2005

initial contacts: 100% complete



a post-industrial city. Typical response
green architecture now

sustainability as a continuum



sustainable strategies that are a part of conventional practice in Chicago

- renovation and restoration
- building for durability and adaptability
- building in dense urban areas
- using existing infrastructure
- building adjacent to public transportation
- green and reflective roofs
- energy efficient envelopes

phone survey, 2005

what's green?



a post-industrial city. Is there a new green architecture in Chicago? Conventional urban practices that could be considered sustainable.

green architecture now

“We are always doing green ‘naturally’ because we build for durability.”

“Every good architect will say he does sustainable work.”

phone survey, 2005

what's green?



a post-industrial city. Is there a new green architecture in Chicago? Some understanding of the city as a sustainable idea.

green architecture now

firms w/ green projects:
22%

[city of chicago]



firms w/ no green projects:
78%

[city of chicago]

phone survey, 2005

data for 258 firms



a post-industrial city. Is there a new green architecture in Chicago? Not widely accepted.

green architecture now

a continuum: **clueless**, hostile, indifferent, on the verge, making an effort



“I haven't the slightest idea of what you are talking about .”

“What the heck are you talking about? This is an architect's office .”

“No—we are just architects.”

phone survey

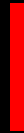
‘do you design green buildings?’



a post-industrial city. Is there a new green architecture in Chicago? Misconceptions...

green architecture now

a continuum: clueless, **hostile**, indifferent, on the verge, making an effort



“Oh, that,.... NO! “

“We have nothing to do with green!”

“We don't do green architecture because we don't believe in it ! “

phone survey

‘do you design green buildings?’



a post-industrial city. Is there a new green architecture in Chicago? Misconceptions...

green architecture now

a continuum: clueless, hostile, **indifferent**, on the verge, making an effort



“Our work is to recreate what has already been done, we don't have any initiatives or plans to do green architecture.”

“Our market niche doesn't have anything to do with sustainability—it doesn't apply to us.”

“Our developer clients are very hesitant about anything green.”

phone survey

‘do you design green buildings?’



a post-industrial city. Is there a new green architecture in Chicago? Misconceptions...

green architecture now

a continuum: clueless, hostile, indifferent, **on the verge**, making an effort



“We are interested in sustainability as designers, but we have just not been able to transfer it to our business yet.”

‘I do not do sustainable work—quite candidly, but I am attending LEED classes.’

phone survey

‘do you design green buildings?’



a post-industrial city. Is there a new green architecture in Chicago? Misconceptions...

green architecture now

a continuum: clueless, hostile, indifferent, on the verge, **making an effort**



“There’s lots of misconceptions about cost among our clients. We always do things we don’t tell our clients about because they think that sustainability means money.”

“We tried to incorporate a geo-thermal system once. It was just too cost prohibitive.”

“We are always educating our clients.”

phone survey

‘do you design green buildings?’



a post-industrial city. Is there a new green architecture in Chicago? Misconceptions...

green architecture now



a post-industrial city. Is there a new green architecture in Chicago? Suggestions, and the beginning of some change...

green architecture now

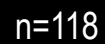
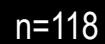
“We need some examples of good work at minimal cost. Small things that will make a big difference. Green roofs on garages. Kitchens with renewable and recycled materials. That sort of information will make a big difference for a lot of clients.”

“If clients got tax breaks, they’d be interested.”

“Give me an expedited process and a free permit. Then I’d get somewhere.”

phone survey

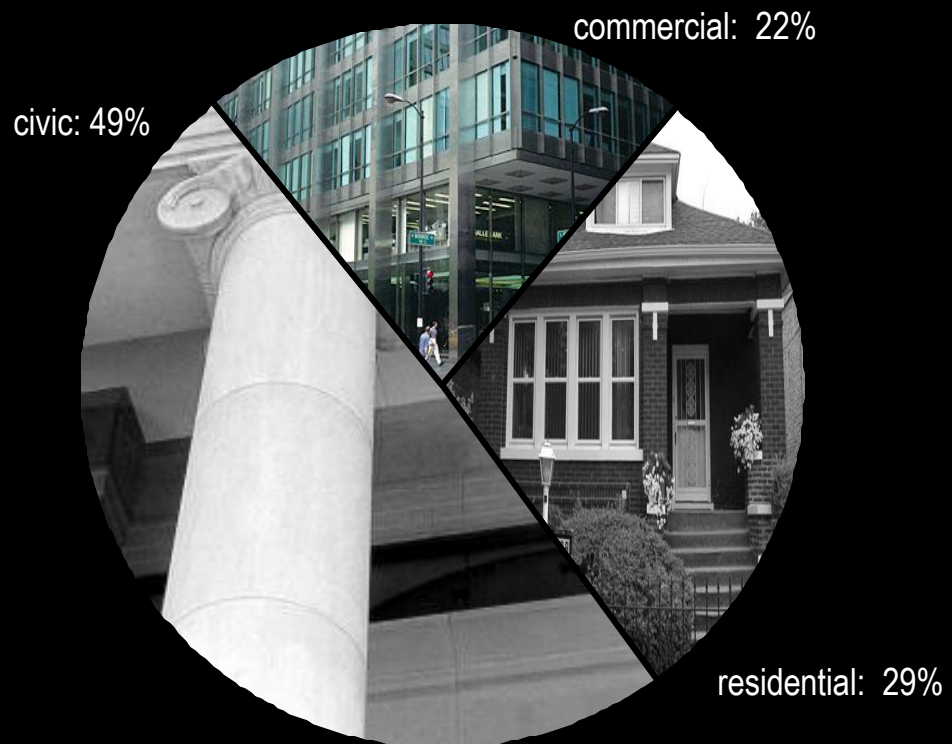
‘do you design green buildings?’





green building inventory

n=118



inventory: 'green' buildings in Chicago, 1950-2006

n=118 projects

LEED certified: 26% [22%] civic



other: 87%

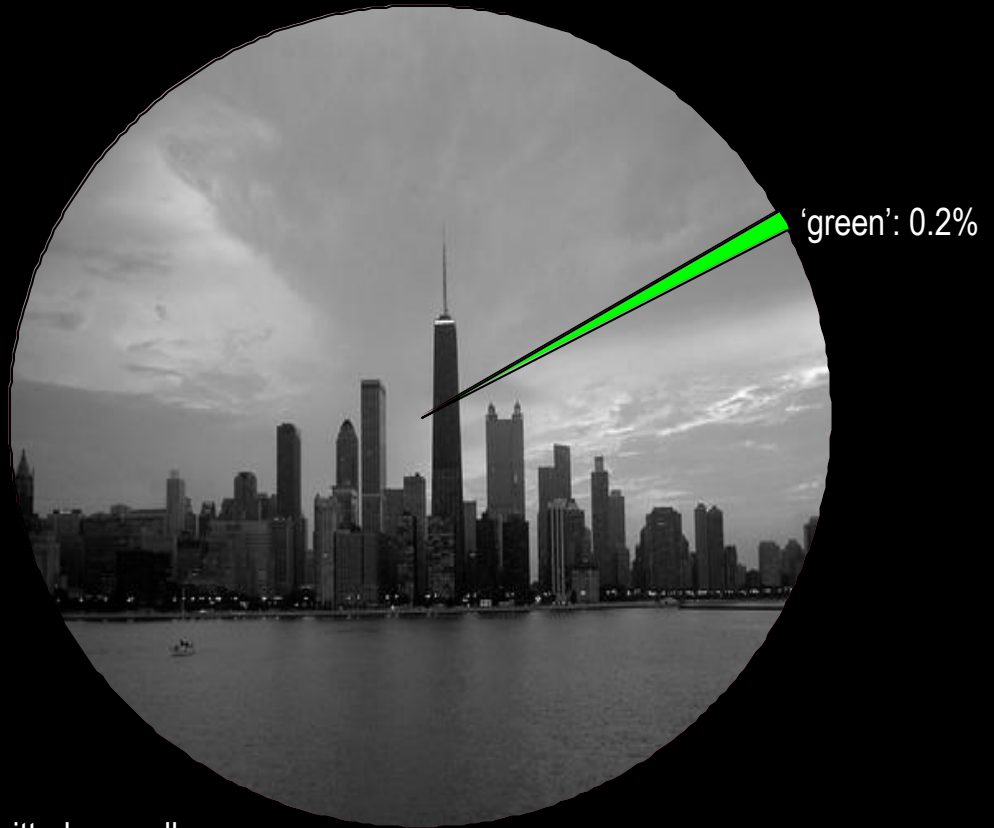
"The Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ is the nationally accepted benchmark for the design, construction, and operation of high performance green buildings."

inventory: 'green' buildings in Chicago, 1950-2006



green building inventory

n=118



54,000 buildings permitted annually

inventory: 'green' buildings in Chicago, 1950-2006

Not enough. Not nearly enough.



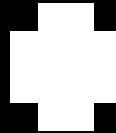
green building inventory

n=118

design decisions

•how?

•why?



economics

policy

social issues

case studies

study design



green building case studies

n=14



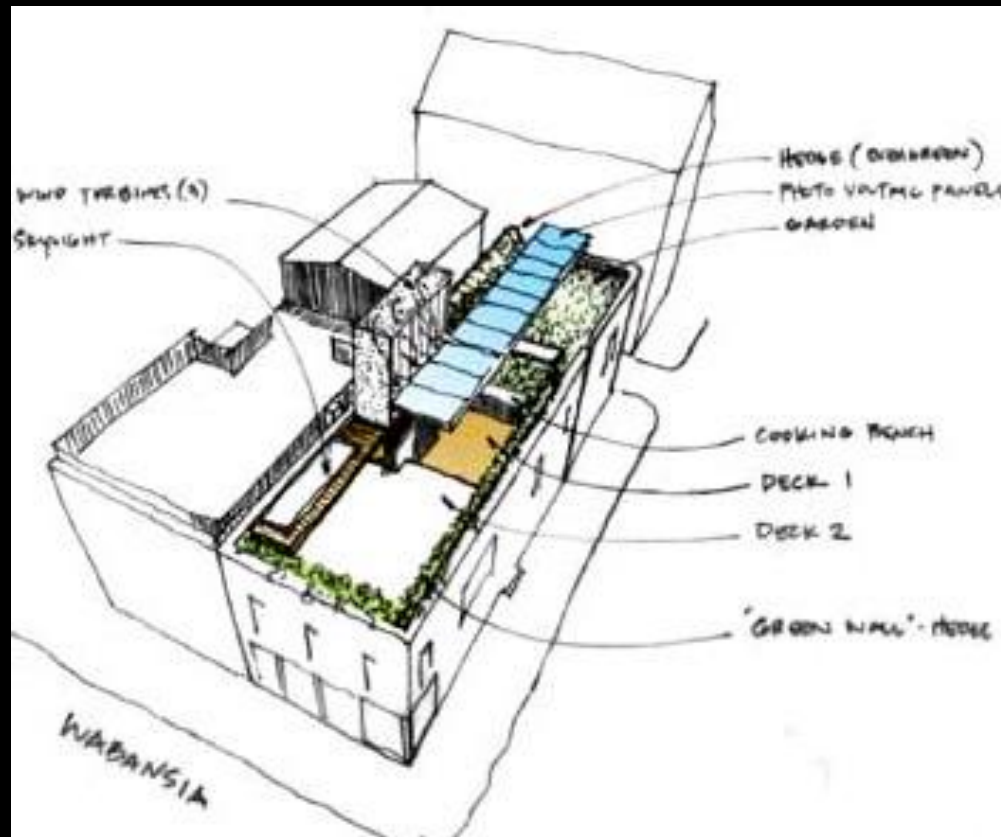
Case study examples:

- A range of building types;
- Representative, not extraordinary



case studies

Analysis and conclusions



FEATURES:

Siting: densely populated location close to public transport;
renovation of an existing building

Energy efficiency: wind turbines, geothermal heating/cooling,
photovoltaics, light shelves, green roof, insulated building
envelope

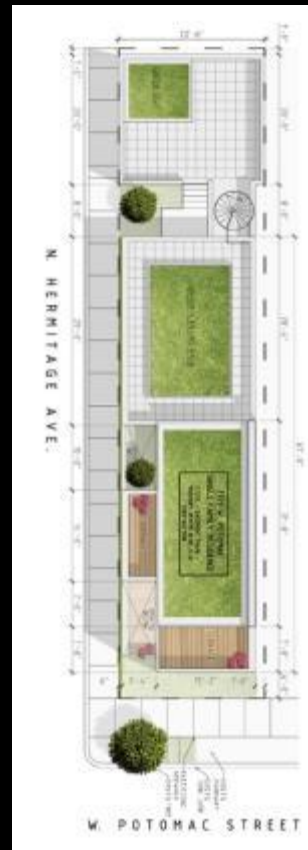
Materials: some incidental recycled materials

Other: added 20% to building costs; design/build



case studies: residential

1825 W. Wabansia Avenue



FEATURES:

Siting: densely populated location close to public transport

Energy efficiency: orientation, geothermal heating/cooling, wind turbine, highly insulated building envelope

Materials: construction waste recycled, recycled building materials, regional building materials, low VOC, **modular building system**

Water: rainwater harvesting, drought resistant landscaping

Other: design/build, **same cost as a conventional developer house** [\$125/sq ft] [\$1k/sq m]



case studies: residential

Norsman residence



FEATURES:

Siting: densely populated
location close to public transport

Energy efficiency: digital controls
and modeling, daylighting
controls, green roof, insulated
building envelope

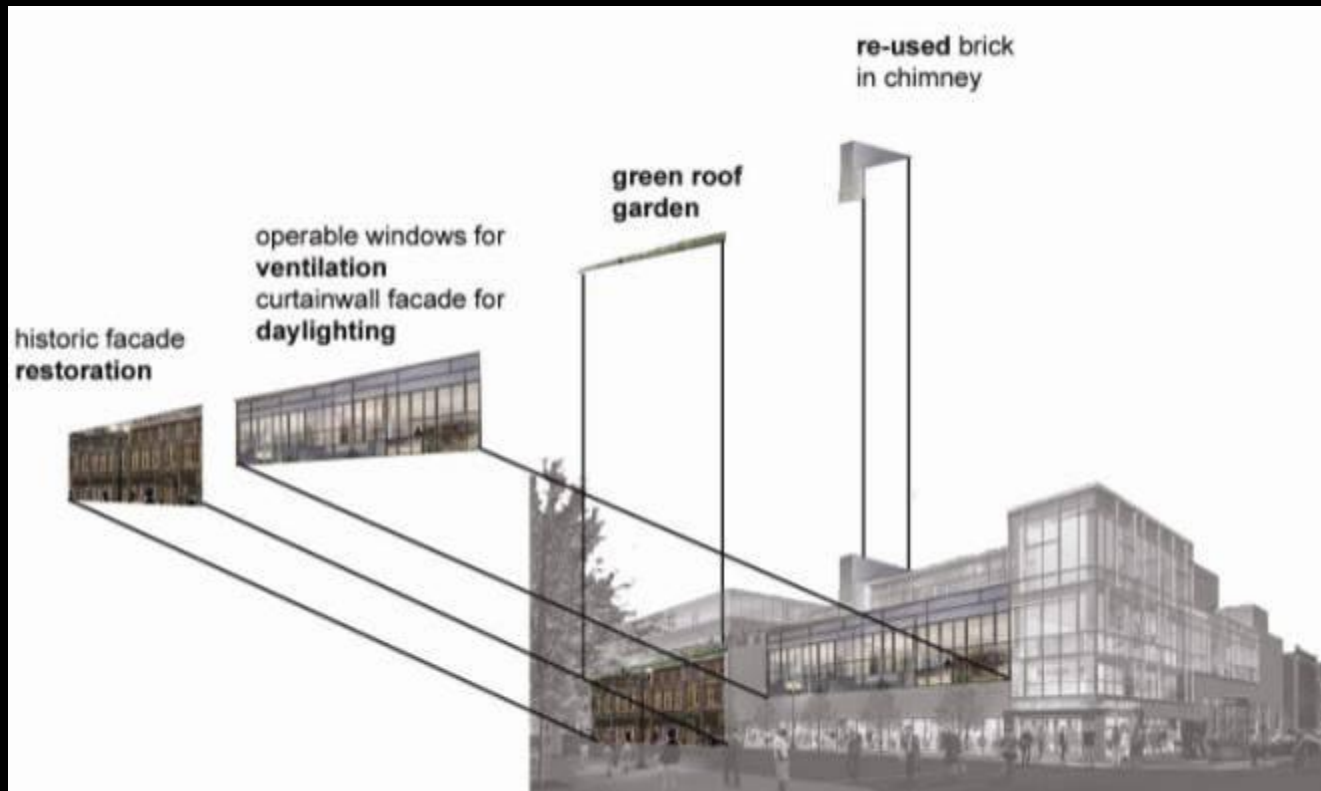
Materials: construction waste
recycled, 20% of building
materials are recycled, 10% of
building materials are regional

Other: LEED; **extension of
organization's mission driven
by architect**



case studies: institutional

Spertus Institute



FEATURES:

Siting: densely populated
location close to public transport

Energy efficiency: digital controls
and modeling, daylighting
controls, green roof, insulated
building envelope

Materials: construction waste
recycled, 20% of building
materials are recycled, 10% of
building materials are regional

Water: **rainwater harvesting,**
graywater system, waterless
urinals

Other: LEED; ***extension of***
architect's mission and means
of raising funds



case studies: institutional

Center on Halsted



FEATURES:

Siting: densely populated location close to public transport

Energy efficiency: digital controls and modeling, daylighting controls and reflective surfaces, **reflecting pool for humidity control**, 50% green power

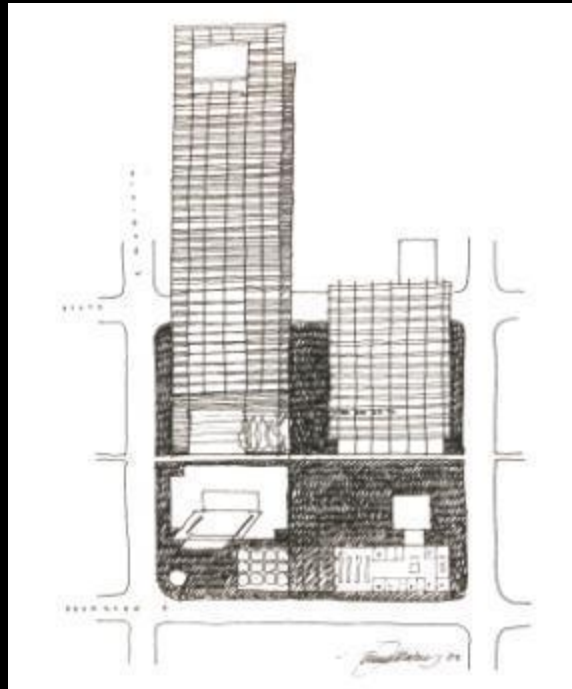
Materials: construction waste recycled, 20% of building materials are recycled, 10% of building materials are regional, all low VOC, all finish materials adaptable

Other: LEED gold; **extension of corporation's marketing**



case studies: commercial

Haworth Showroom



FEATURES:

Siting: densely populated location close to public transport

Energy efficiency: digital controls and modeling, daylighting controls, green roof, highly insulated building envelope, smart elevators

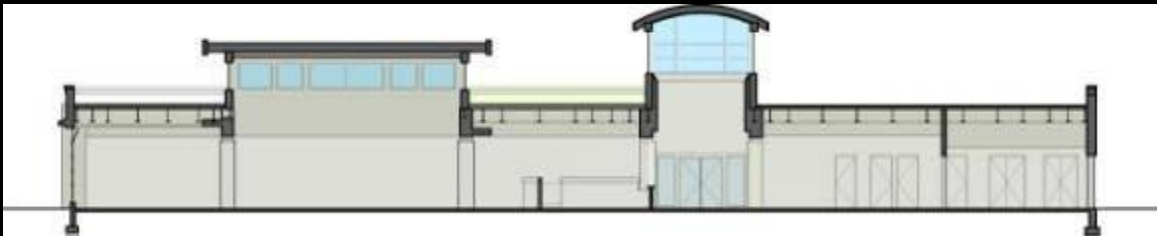
Materials: construction waste recycled, 15% of building materials are recycled, 23% of building materials are regional

Other: LEED silver; ***standard practices for a high quality building exceed LEED; developer/designer/owner***



case studies: commercial

One South Dearborn



FEATURES:

Siting: densely populated location close to public transport

Energy efficiency: digital controls and modeling, daylighting controls, green roof, insulated building envelope

Materials: construction waste recycled, 20% of building materials are recycled, 10% of building materials are regional

Other: LEED; extension of organization's mission



case studies: governmental

Vodak Public Library



FEATURES:

Siting: densely populated location close to public transport; renovation of existing buildings [75 % reused]

Energy efficiency: digital controls and modeling, daylighting controls, green roof, insulated building envelope, **large area of semi-conditioned space, solar wall**

Materials: construction waste recycled, 20% of building materials are recycled, 10% of building materials are regional

Other: LEED silver; **emergence of a new approach to waste management and economic sustainability**



case studies: governmental

Household Hazardous Waste and Electronics Training Center

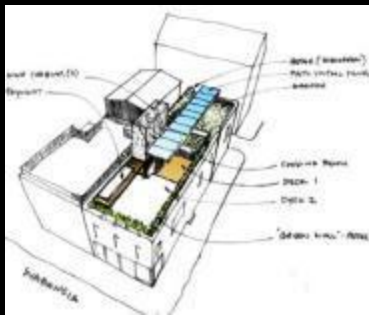


case studies

Analysis and conclusions

Building technology—very similar:

- Higher quality systems and envelopes
- Limited innovation



All types:

- more integrated design processes;
- energy efficiency can be achieved at a cost close to conventional construction
- city policy develops a local cadre of experts [designers, builders, developers]



case studies

Analysis and conclusions

Problems with the LEED rating system?

- At the moment, more of a logo or brand
- Incremental not innovative. [LEED will start requiring rated building to be carbon neutral by the end of this year.]

Market-driven incremental change not enough; national politics are hopeless

- Critical because the building sector accounts for 30-40% of global energy use
- Efficiencies using existing technology could exceed the Kyoto protocols

How to change the market, and let the politics take care of themselves:

- reformat the city...



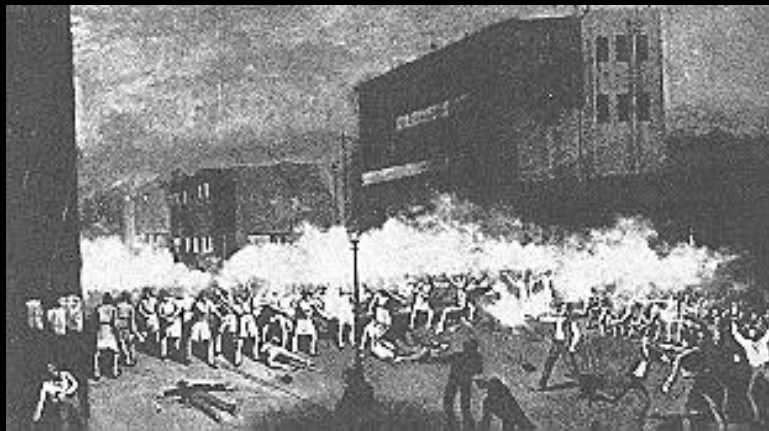
case studies what limits the impact of green building?

Analysis and conclusions



case studies: somos nacos y todos los nacos tienen un actitud a disegno,

Analysis and conclusions; learn how to solve the problem in the design, instead of depending upon technology?



1 May 1886: Haymarket
demonstrations for the eight
hour day

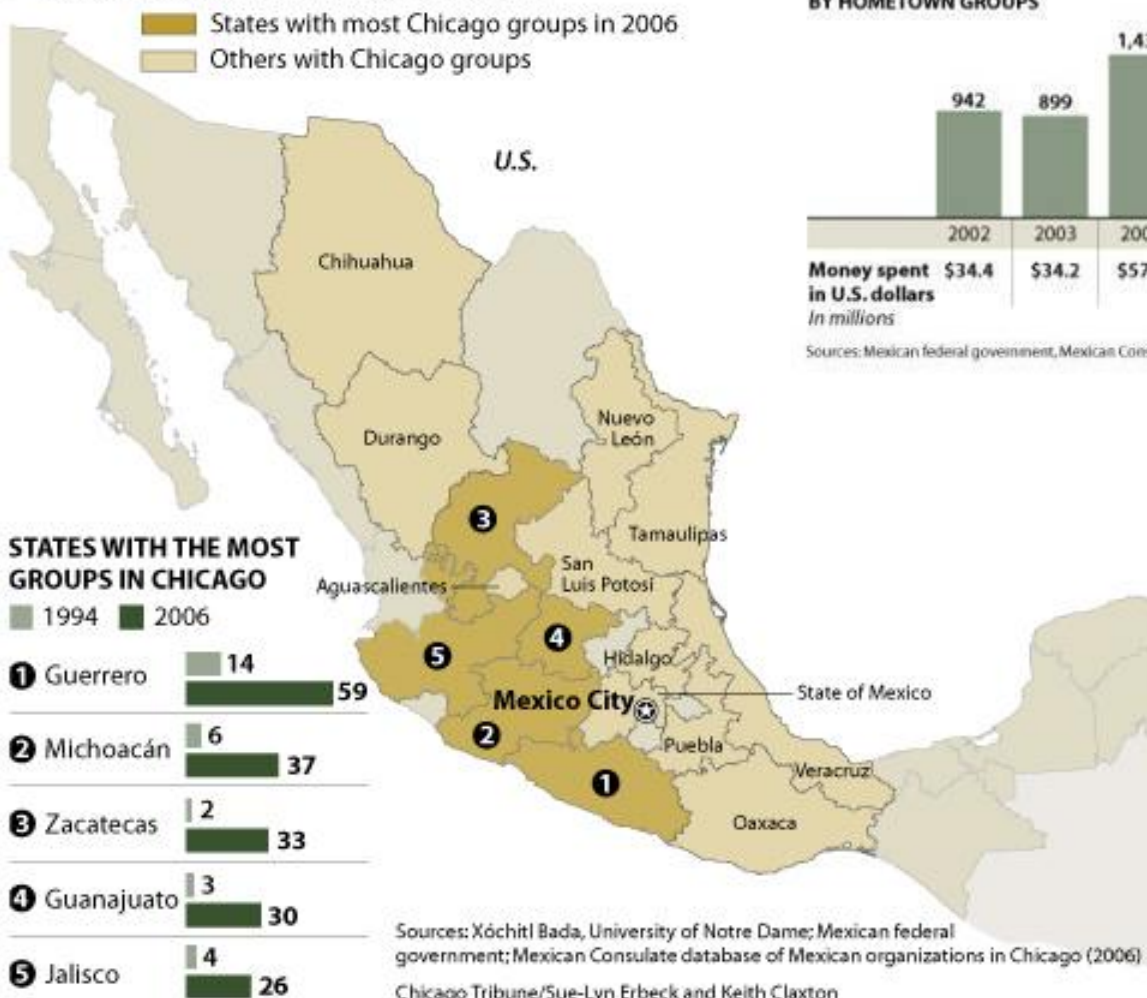


conclusion 1 May 06

May Day, Chicago style

Chicago's big footprint in Mexico

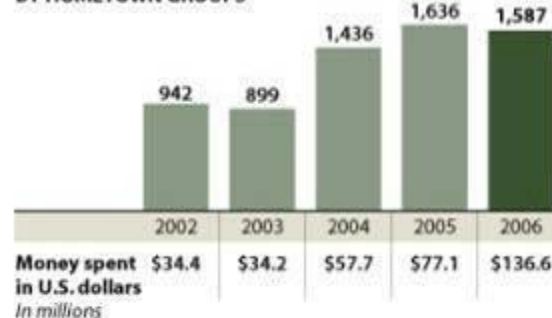
Chicago's Mexican hometown associations—immigrant groups that send money and provide political connections—represent 16 Mexican states and the capital.



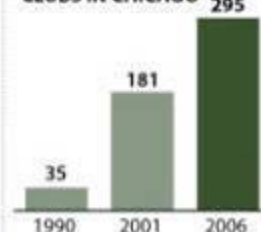
Spending by hometown associations

Hometown associations in the U.S. have initiated \$340 million in roads, churches and other improvements in Mexico since 2002. Federal, state and local governments in Mexico share the projects' cost in a three-for-one matching program.

NUMBER OF PROJECTS IN MEXICO CO-FUNDED BY HOMETOWN GROUPS



GROWTH OF HOMETOWN CLUBS IN CHICAGO



Sources: Mexican federal government; Mexican Consulate database of Mexican organizations in Chicago (2006)

Chicago Tribune

conclusion 1 May 07

A post-industrial economy becomes more extensive, has a new relationship to global realities.





An intimate understanding of the flows of people
and resources into and out of our city?



conclusion 1 May 06

Mixture intensifies; global relationships become more important than national ones?



SCOTT STEWART - SUN-TIMES

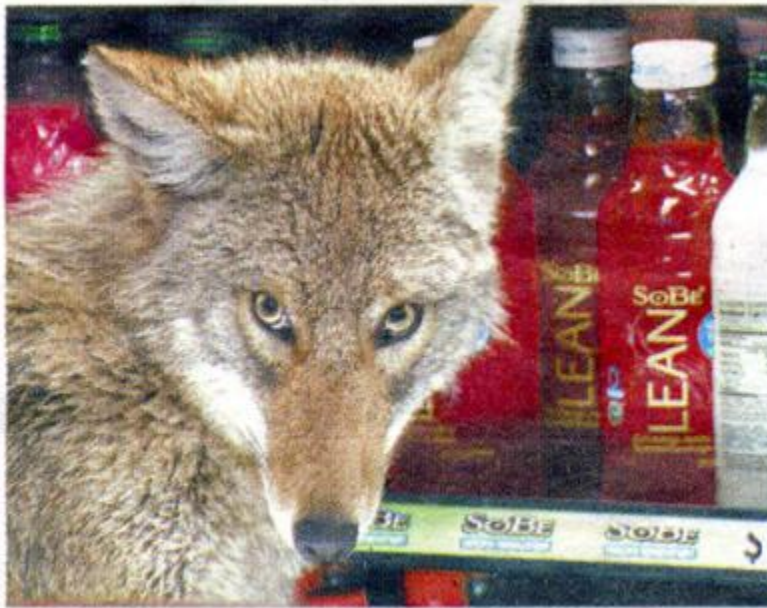
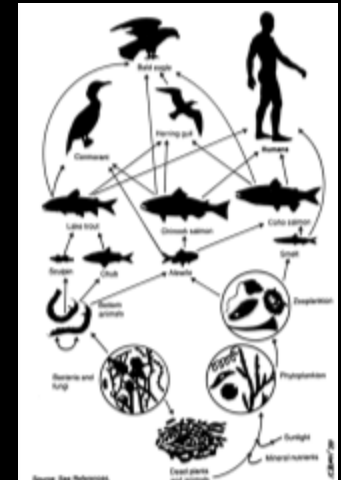


PHOTO EXCLUSIVE

A SUBURBANITE GETS LOST IN THE LOOP

DOWNTOWN | How this coyote wound up at a sandwich shop | **PAGES 10-11**



conclusion Small, but big [un idea naco...vivimos en una ciudad se llama de un verdura]

Designing an urban ecology: both bigger and smaller than a building. Requires an understanding of our ecological footprint.



Complete world-wide switch to compact fluorescent bulbs by 2010 would deliver over half the reductions required by the Kyoto protocols.

Chicago will distribute compact fluorescent bulbs for a year to everyone who lives in the city, and after that year, incandescent bulbs will be banned.

Opens discussion of a new series of post-industrial infrastructures, as the city's original infrastructures reach the point of catastrophic decline.

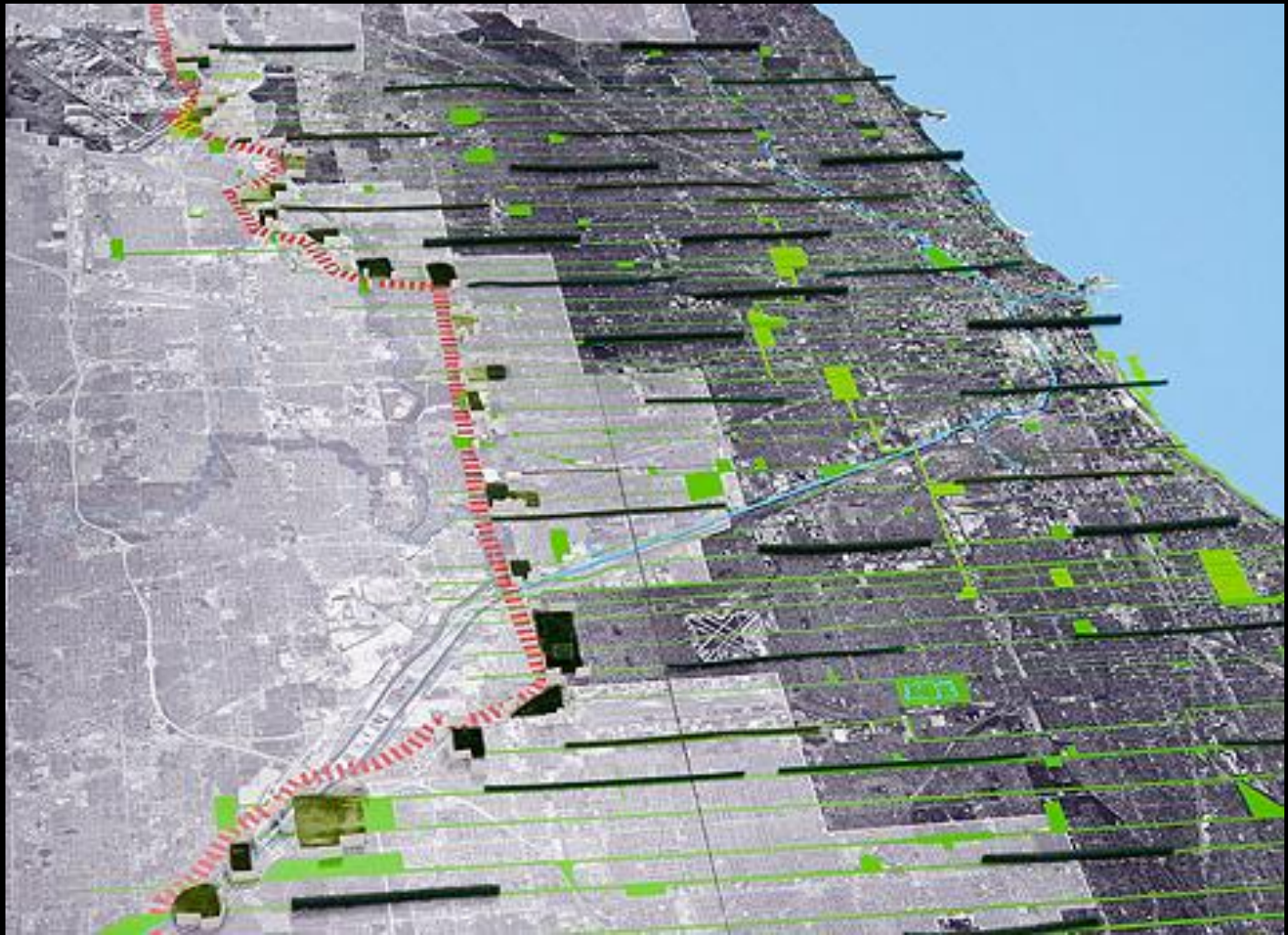


...need to replace infrastructure



conclusion Small, but big

Designing an urban ecology: smaller than a building--no more incandescent light bulbs.



Water is the new oil; Urbanlab, 2007; grow water



conclusion Small, but big

the centennial of Burnham's 1909 Plan; a new generation of post-industrial infrastructures.



Reoccupy the wastelands, Gensler/Urbanlab, 2005



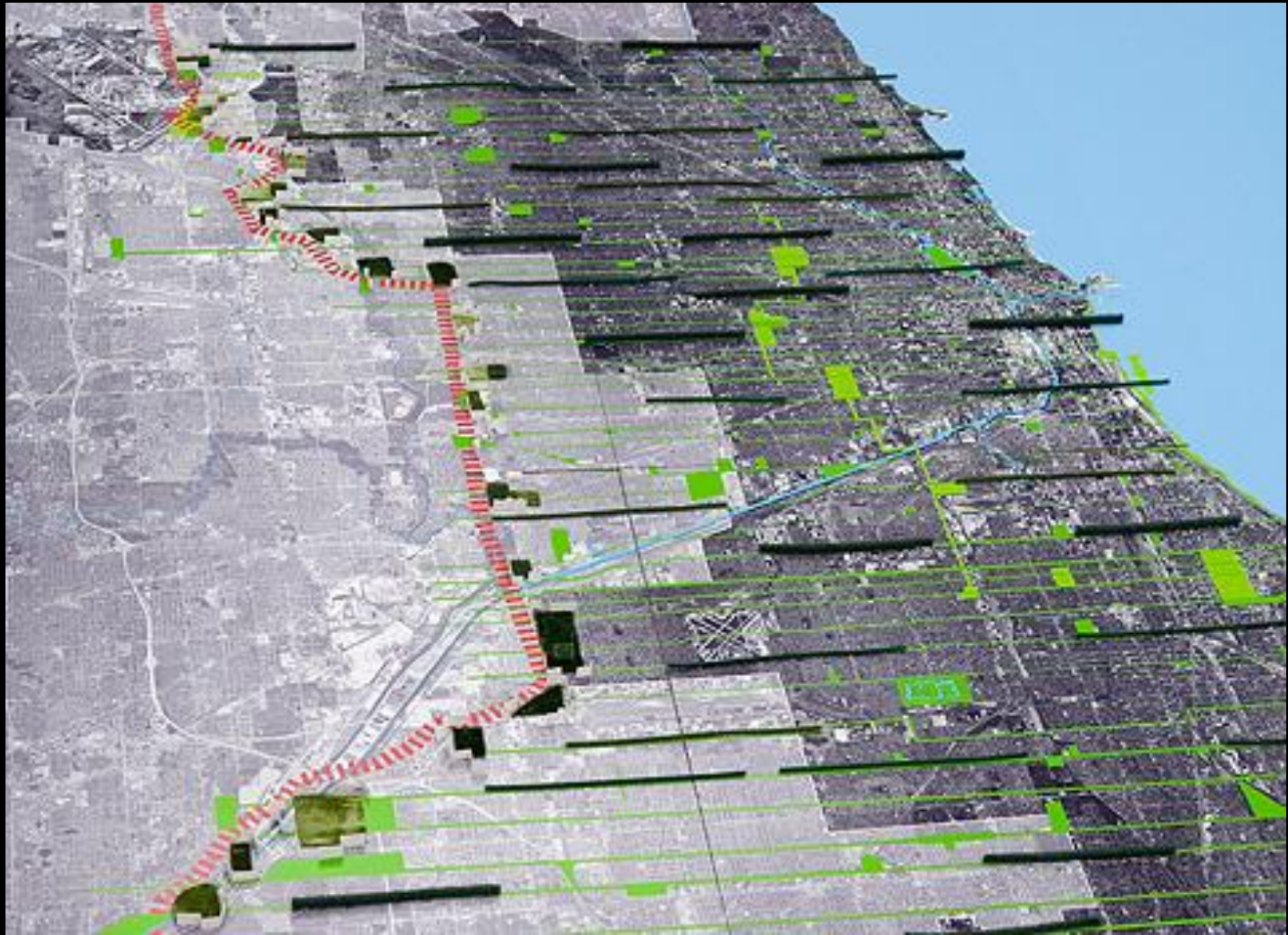
conclusion looking toward 2009

reoccupy contaminated areas with new waste collection infrastructures.



“Make no small plans
for they do not have
the power to stir
men’s souls.”

Burnham 1909



Water is the new oil; Urbanlab, 2007; Chicago stops contaminating the Mississippi



conclusion looking toward 2009

Small, but big; the centennial of Burnham’s 1909 Plan; a new generation of post-industrial infrastructures.



conclusion looking toward 2009

Small, but big; the centennial of Burnham's 1909 Plan; the current proposal: a city with a positive ecological footprint by ?

